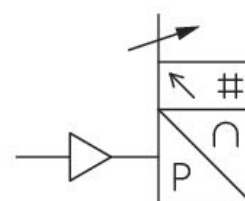


Pressure sensor, Series PE2

R412010858

General series information
AVENTICS Series PE2 Pressure sensors

- The AVENTICS Series PE2 is a resistant and robust pressure sensor. It combines electronic precision and versatile function with ideal user friendliness.



Technical information

Industry	Industrial
Output signal	1x PNP and 1x analog 4 ... 20 mA
Type	electronic
Type	Archive product: Do not use in new constructions!
Mounting orientation	Any
Operating pressure min	0 bar
Operating pressure max	16 bar
Protection against overpressure	40 bar
Operational voltage	24 V DC
Switching logic	Hysteresis function NO/NC (programmable) Window function NO/NC (programmable)
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)

Hysteresis	adjustable
Measurement	Relative pressure
Display	OLED
Units displayed	bar mbar psi kPa MPa %
Compressed air connection type	Flange with O-ring
Compressed air connection	Ø 5x1,5
Working pressure min.	0 bar
Working pressure max	16 bar
Min. medium temperature	-10 °C
Max. medium temperature	75 °C
Medium	Compressed air Neutral gases
Certificates	CE declaration of conformity EMV
Electrical connection 2, type	Plug
Electrical connection 2, thread size	M12x1
Electrical connection 2, number of poles	5-pin
Min. ambient temperature	-10 °C
Max. ambient temperature	75 °C
Operating pressure display	2 LED
Switching time	< 10 ms at loads < 100 kΩ > 10 ms at loads > 100 kΩ
Resetting point	Adjustable 0% FS to SP -0.5% FS (or +0.5% FS when SP < 0)
Switching point	Adjustable ≥ 0.5% ... 100% FS
Quiescent current consumption	<50 mA
Switching/reset delay	adjustable
Maximum load (analog current output)	600 Ω
Protection class	IP65
Short circuit resistance	short circuit resistant
Mounting types	via through holes
Weight	0.3 kg

Material

Housing material	Aluminum
Seal material	Fluorocautchouc
Material electrical connection	Aluminum with polymer insert
Part No.	R412010858

Technical information

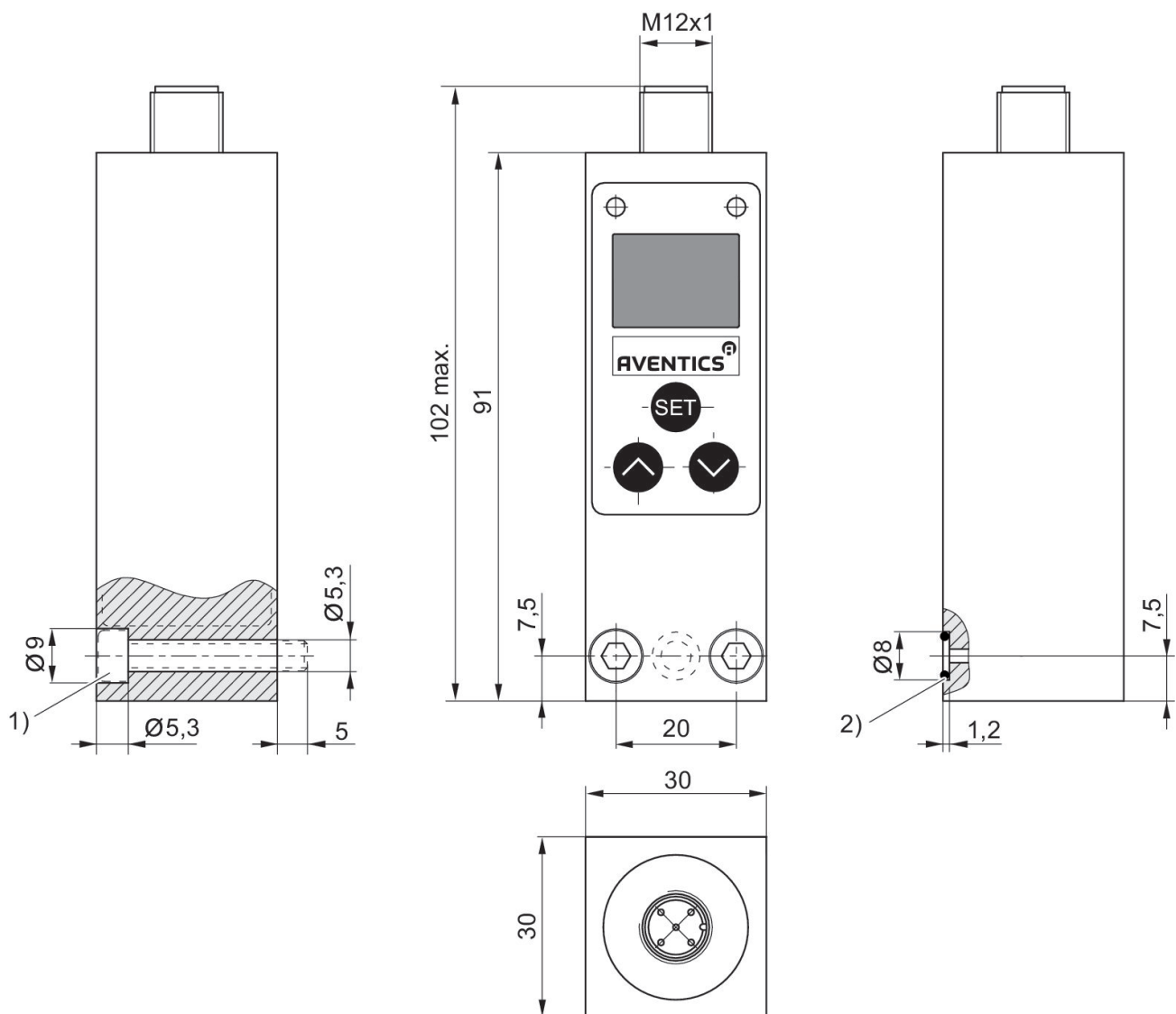
Menu navigation is based on the VDMA specification with an additional plain text menu.

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

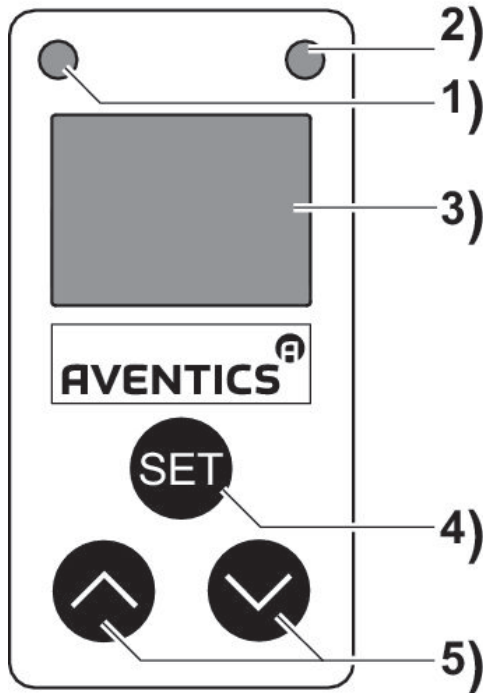
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

Dimensions



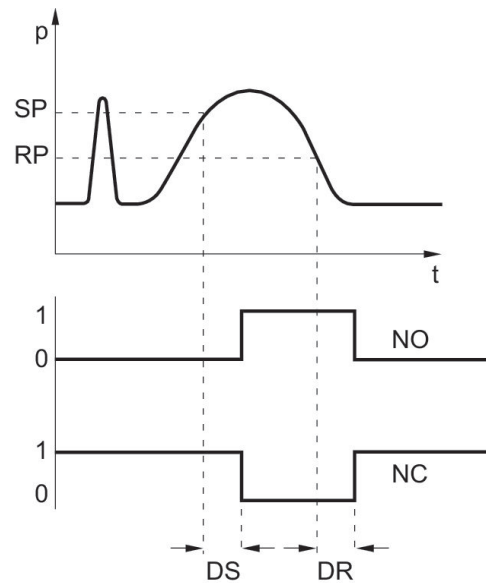
- 1) cylinder screw M5x35 (included in scope of delivery)
2) O-ring Ø5x1,5 (included)

Display and operation area



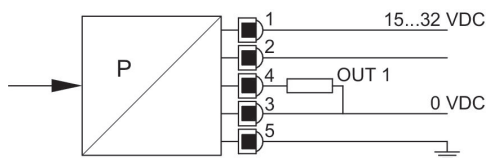
1) LED for switch output 1 2) LED for switch output 2 3) Display (pressure, operating modes, navigation) 4) Confirm menu/menu item selection 5) Button for menu item/parameter change selection

Pressure-voltage characteristics curve



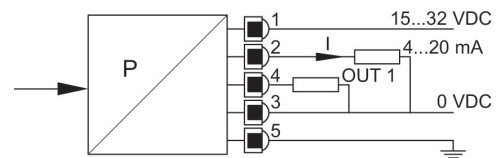
SP = switching point RP = resetting point
NO = Switching function open
NC = Switching function closed without current
DS = Delay for the switching point
DR = Delay for the resetting point

Block diagram 1 x PNP

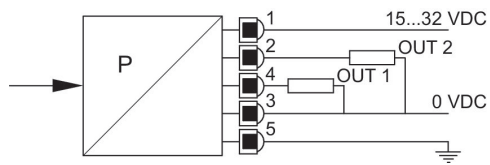


Using the wrong EPLAN macro may result in short circuits.

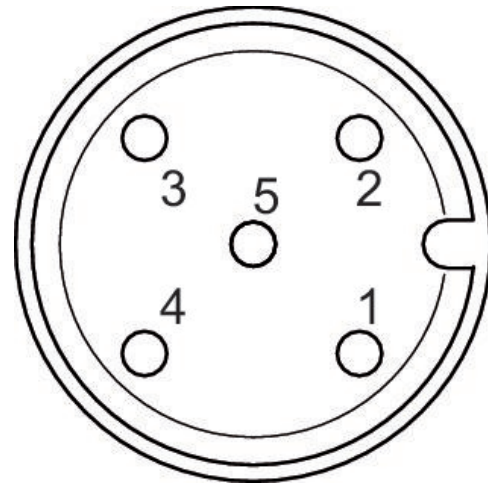
Block diagram 1x PNP and 1x analog



Block diagram 2 x PNP



Pin assignments



pin 1: signal + UB, color: brown pin 2: signal: out 2 (PNP)/analog 4 - 20 mA, color: white pin 3: signal: 0 volt, color: blue pin 4: signal: out 1 (PNP), color: black pin 5: signal: FE, color: gray